

AMENDMENTS TO THE CLAIMS

1 to 14. (Canceled)

15. (Original) An anchor assembly for securing a fixation element, comprising:

an anchor element adapted for attachment to bone and defining a central longitudinal axis, the anchor element having an open slot for receiving the fixation element, side walls on opposed sides of the open slot, a proximal portion, a distal portion, and an anchor flange segment extending from each of the side walls in a direction toward the central longitudinal axis, the anchor flange segments each including an inferior contact surface ; and

a closure element for closing the open slot in the anchor element and applying pressure to the fixation element to capture the fixation element within the open slot, the closure element including a closure body and a plurality of closure flange segments extending from the closure body in a direction that is transverse to the anchor element central longitudinal axis when the closure element is placed in the open slot, each closure flange segment including a superior contact surface extending in a direction away from the central longitudinal axis when the closure element is placed in the open slot so that the closure flange segment superior surfaces engage the anchor element flange segment inferior surfaces over a contact area when the closure element is placed in a closed position in the anchor element open slot;

wherein the closure flange segments further include exterior surfaces that extend away from the longitudinal axis and proximally when the closure element is placed in the open slot to provide a partial cone shaped outer surface to the closure flanges.

16. (Original) The assembly of claim 15, wherein the side walls become thinner in a proximal direction to correspond to the partial cone shaped outer surfaces of the closure flanges.

17. (Original) The assembly of claim 15, wherein the anchor flange segment inferior surfaces extend in a direction toward the central longitudinal axis and toward the distal portion to define a radial slant and the closure flange segment superior surfaces extend in a direction away from the central longitudinal axis and toward the proximal portion of the anchor element at the radial slant when the closure element is placed in the open slot.

18. (Original) The assembly of claim 17, wherein the radial slant is configured to permit the sliding of the anchor flange segment inferior surfaces with respect to the closure flange segment superior surfaces upon pressure being applied on the fixation element.

19. (Original) The assembly of claim 17, wherein the radial slant is configured so that, when the closure element is in its closed position and pressure is applied to secure the fixation element within the open slot in the anchor element, the sidewalls are drawn together.

20. (Original) The assembly of claim 17, wherein the radial slant is at an angle of approximately 45 degrees to the central longitudinal axis.

21. (Original) The assembly of claim 15, wherein the closure element and anchor element each include detent elements that engage to lock the closure element in the closed position.

22. (Original) The assembly of claim 21, wherein a first one of the closure and anchor detent elements is a protrusion and a second one of the closure and anchor detent elements is a recess configured to capture the protuberance.

23. (Original) The assembly of claim 22, wherein the anchor detent element is provided on the anchor flange segment.

24. (Original) The assembly of claim 23, wherein the first one of the closure and anchor detent elements is a longitudinal protrusion and the second one of the closure and anchor detent elements is a longitudinal slot.

25. (Original) The assembly of claim 23, wherein the flanges are configured such that applying pressure to the fixation element within the slot causes the detent elements to engage with greater strength.

26. (Original) The assembly of claim 15, wherein the closure element further includes a centrally placed clamping member for applying pressure to the fixation element within the slot.

27. (Original) The assembly of claim 26, wherein the clamping member is a set screw.
28. (Previously Presented) An anchor assembly for securing a fixation element, comprising:
an anchor element adapted for attachment to bone and defining a central longitudinal axis, the anchor element having an open slot for receiving the fixation element, side walls on opposed sides of the open slot, a proximal portion, a distal portion, and an anchor flange segment extending from each of the side walls in a direction toward the central longitudinal axis, the anchor flange segments each including an inferior contact surface extending in a direction toward the central longitudinal axis and toward the distal portion to define a radial slant; and
a closure element for closing the open slot in the anchor element and applying pressure to the fixation element to capture the fixation element within the open slot, the closure element including a closure body and a plurality of closure flange segments extending from the closure body in a direction that is transverse to the anchor element central longitudinal axis when the closure element is placed in the open slot, each closure flange segment including a superior contact surface extending in a direction away from the central longitudinal axis and toward the proximal portion of the anchor element at the radial slant when the closure element is placed in the open slot so that the closure flange segment superior surfaces engage the anchor element flange segment inferior surfaces over a contact area when the closure element is placed in a closed position in the anchor element open slot;
wherein the radial slant is configured to cause sliding of the anchor flange segment inferior surfaces with respect to the closure flange segment superior surfaces upon pressure being applied on the fixation element.
29. (Original) The assembly of claim 28, wherein the closure flange segments further include exterior surfaces that extend away from the longitudinal axis and proximally when the closure element is placed in the open slot to provide a partial cone shaped outer surface to the closure flanges.
30. (Original) The assembly of claim 29, wherein the side walls become thinner in a proximal direction to correspond to the partial cone shaped outer surfaces of the closure flanges.

31. (Original) The assembly of claim 28, wherein the radial slant is configured so that, when the closure element is in its closed position and pressure is applied to secure the fixation element within the open slot in the anchor element, the sidewalls are drawn together.
32. (Original) The assembly of claim 28, wherein the radial slant is at an angle of approximately 45 degrees to the central longitudinal axis.
33. (Original) The assembly of claim 28, wherein the closure element and anchor element each include detent elements that engage to lock the closure element in the closed position.
34. (Original) The assembly of claim 33, wherein a first one of the closure and anchor detent elements is a protrusion and a second one of the closure and anchor detent elements is a recess configured to capture the protuberance.
35. (Original) The assembly of claim 34, wherein the anchor detent element is provided on the anchor flange segment.
36. (Original) The assembly of claim 35, wherein the first one of the closure and anchor detent elements is a longitudinal protrusion and the second one of the closure and anchor detent elements is a longitudinal slot.
37. (Original) The assembly of claim 33, wherein the radial slant is in a direction such that applying pressure to the fixation element within the slot causes the detent elements to engage with greater strength.
38. (Original) The assembly of claim 28, wherein the closure element further includes a centrally placed clamping member for applying pressure to the fixation element within the slot.
39. (Original) The assembly of claim 38, wherein the clamping member is a set screw.